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ABSTRACT

Based on a longitudinal study of vision screening techniques for handicapped children at the Chester County (Pennsylvania) Child Development Center, the paper reports on the development of a battery of effective vision screening methods for children with low functioning handicapped children. Specific tests are described, including the Sheridan Tests for Young Children and Retardates (STYCAR). Techniques for administering these tests are explained in detail. Vision screening procedures at the Center are reviewed with emphasis on the procedures and tests used during 1978-79. A chart listing vision symptoms in decreasing order of frequency is provided. Also given are the referral standards and a statistical analysis of the 1978-79 results. Appended are procedures used to screen acuity (using the Snellen "E" chart), tracking and convergence; a detailed description of the graduated STYCAR tests; a discussion of the observational assessment used with the lowest functioning (M.A. less than 1 year); and sample forms. (Author/DLS)

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TESTING THE UNTESTABLE:
A VISION SCREENING PROGRAM
FOR EXCEPTIONAL CHILDREN

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ABSTRACT

This paper is the result of a longitudinal study of vision screening techniques for handicapped children, a compilation of ten years of experimentation. It is a research report on the development of a battery of effective vision screening methods for all types of exceptional children.

Tests are described; techniques are explained in detail; statistical conclusions are drawn; a copy of a suggested observation checklist is included.

In the public schools of Pennsylvania, annual vision screening of every child is mandated. While standard methods have been applied successfully in the normal school situation, vision screening of exceptional children often requires adapted procedures. Depending on the type of exceptionality, these adaptations may be as minor as using a three-dimentional E with the standard illiterate E chart, or as involved as requiring an entirely innovative approach to vision screening. Too often the adaptations have been more involved and time consuming than the school nurses were able or willing to implement into their routine vision screening programs. The exceptional child's vision screening results were often recorded as "untestable" if they were unable to respond to the standard vision test used by the school nurse. It was simply presumed that special children were unable to have their vision tested -- a view that, unfortunately, was supported by some pediatricians and ophthalmologists.

As greater attention has been given to exceptional children through Federal legislation, PL 94-142, and as special education programs have expanded, it has become increasingly evident that evaluation procedures for class placements had to be revised and improved. Since it is an accepted fact that vision is a primary learning channel, it was evident that the special educator needed to know the extent of vision possessed by each exceptional child, in order to draw up optimal individualized educational programs. No longer could "unable to test" be accepted as information upon which to base an educational program. It would be essential to determine every child's visual capabilities, simply to meet the requirements of the law in planning appropriate educational place-

ments.

The Chester County Child Development Center, in Coatesville, Pennsylvania, offered an ideal experimental environment for vision screening, since this school has housed classes for trainable retarded, severely and profoundly retarded, auditorily impaired, visually limited, orthopedically handicapped, learning disabled, socially and emotionally disturbed, and a variety of multiple handicaps. All types of intellectual, physical, social, and emotional problems existed among these children; handicaps limited language, mobility, and responsiveness: factors of importance in standard vision screening techniques. Here was an ideal site for trying a variety of vision evaluation methods, and the numbers of children allowed experimental methodology to be both broad and statistically suggestive. It was decided to begin with "standard" techniques, and to develop an innovative program as the needs of the pupils indicated. A longitudinal study developed, and is reported on in this paper.

VISION SCREENING PRIOR TO SCHOOL YEAR 1977-78

From 1968 until 1977, the annual vision screening at the Child Development Center was done by the school nurse, with the aid of another nurse or trained volunteer. Every year, after the screening, the nurse was left with a feeling of dissatisfaction because so many of the children had to be considered UTT - "unable to test."

For two years, the screening was done with the tumbling "E" Snellen Chart. Although this is the simplest and preferred test for school children, it was difficult for the handicapped and retarded child. Hoping for better results, a Graham-Field Kindergarten Test Chart was tried the next year, but the retarded pupil could not

relate to the pictures of a sailboat, flag, cup, star, etc. This chart was not used again.

The Insta-Line Testing Program (by the Good-Lite Company) was tried for the next three years and was successful with learning disabled and emotionally disturbed children. Still, too many of the other disabilities remained "untestable."

Searching for yet another way to increase the number of testables, the nurse used the Sjogren Hand Test during the school years 1974-75 and 1976-77. While the retarded children did seem to associate the hand silhouette with their own hands, the over-all performance did not make this the test that would give the maximum results.

In March, 1978, all the children at the Child Development Center were screened by a team from the Pennsylvania Association for the Blind, Harrisburg, Pennsylvania. (The results of this screening are reported on later in this paper.) The school nurse had heard that vision screening standards were being revised, and wanted to have the problem of screening the developmentally-disabled child recognized and included in any future review.

VISION SCREENING DURING THE SCHOOL YEAR 1977-78

Because the children at the Child Development Center were still unable to perform adequately with all methods attempted thus far, it was decided to employ a trained team of vision screeners from the Pennsylvania Association for the Blind. They were to spend whatever time was required to do adequate vision screening on 265 pupils at the Child Development Center. Techniques were devised and personnel was provided by the Team. They chose to use a battery of testing techniques that included the Snellen Illiterate E ("tumbling E") at 20', the Cover Test (for identifying muscle imbalances), informal tests for tracking and convergence at nearpoint, and observation of

visual performance during testing. The Team consisted of two pairs of examiners, so that testing could occur in two places at once, and so that the time required for testing was halved. The testing took one week, and the data obtained was forwarded to the school nurse.

Though results indicated that more visual defects were identified, there were still many "untestable" children, and statistical analysis of data suggested inconsistencies in criteria for pass-fail, and for referral levels. (see Table 1) Discussion with personnel on the Team reinforced previous observations of problems in screening techniques: the lowest functioning children were restless and inattentive at the 20' test distance; they were non-verbal for response purposes; some children could not interpret directionality; there was some question about the basis for the inability to track: was it organically related or developmental in origin? (That is, if a child could not track, was it because he was visually unable, or because his physical and mental development were retarded?) Some questions also existed concerning muscle imbalances: was the high occurrence rate a result of the poor neurological development of many of these children, or was it associated with actual visual-muscle defects? (see Table 2) The lack of accurate evidence to answer these questions, the inconclusive data obtained, and the still too high number of untestable children suggested that an optimal vision screening plan had not yet been devised, and that further experimentation in methodology was indicated.

During this time, the school nurse ordered a film from the National Medical Audio-Visual Center. The film was: "Child Development: Testing Vision in the Pre-School Child (Six Months to Six Years)" by Mary Sheridan and Neil O'Doherty. The film was made in Windsor, England, and showed the STYCAR Test Materials. The nurse mentioned

the film to the Vision Consultant of the Intermediate Unit #24 and learned that the Consultant knew of the STYCAR Tests, and had ordered the materials and testing information; the materials arrived near the end of the 1978 school year. During a discussion of vision screening methods, the school nurse and the Vision Consultant agreed to do the screening jointly at the Child Development Center for the 1978-79 school year, using a battery of tests that included the STYCAR materials; results were to be compared with those obtained by the Association for the Blind's Team.

SCHOOL YEAR 1978-79

With increased emphasis on individualized educational programming (I.E.P.'s), it seemed more urgent than ever to devise a more appropriate and accurate means of assessing the visual status of each child. Techniques had to be as rapid as possible, in order to screen large numbers of children, and yet needed to be both individualized and appropriate. Methods had to adapt quickly to a variety of handicaps, and should ideally result in measurable notations that could be statistically compared. No single vision screening test known met these requirements.

It was decided that a battery of tests would provide the most information, the broadest application, and the greatest flexibility. Selection of tests had to meet this criteria. It was further decided to begin wide range screening with a broad based battery of standard methods, and to develop flexibility in testing techniques by adding a series of additional tests in descending order of difficulty. The last step on the evaluation scale would remain observation by a Vision Consultant who had experience in assessing low functioning children.

The initial screening battery, to be administered jointly by the School Nurse and a Vision Consultant, was the Snellen Illiterate E Test @ 20' (used in conjunction with a three dimensional E manipulated by the child), 180° Tracking, Convergence, and Cover Test at nearpoint. (Descriptions of precise procedures are included in this report.) All children would be screened initially with this battery. Those children who were unable to respond to these techniques adequately, in the judgment of the examiners, were to be recalled at a later date and retested with one or more of the expanded methods selected from the STYCAR Techniques.

The STYCAR Tests seemed to have possibilities for use in screening the vision of these low functioning children, since they offered a number of possible techniques which could be applied to various types of children. The low age range at which these tests had been successfully tried was an appealing factor, since most of the difficult-to-test children were functioning at levels below age five, many of them below age three.

A battery of tests, selected from the STYCAR group, was developed in sequence of decreasing difficulty. That is, if a child was unable to respond to the standard screening technique, he was retested later with the highest selected STYCAR Test; if he did not respond to that, he was tried with an easier STYCAR Test. This procedure continued until the child responded positively to one of the selected tests. Since the simplest STYCAR Test is able to be used with infants as young as six months old, the downward range of difficulty permitted reasonably accurate vision screening of children functioning at under

the year-old level. (A description of the STYCAR Tests is included in this report.)

It was found that, in reality, only a very small percentage of exceptional children were actually untestable. (see Table 3) That group may still be reasonably well evaluated through intensive observation by a trained observer. (A suggested format for assessment of the vision status of "untestable" children is included in this report; it is labeled Appendix 3) Such evaluations must be approached with the same attention to visual behavior as actual vision screening. No program of vision screening for exceptional children should be undertaken by inexperienced personnel. Extreme patience, coupled with skilled observation, are needed for optimum results in this type of evaluation.

If an adequate vision screening program for exceptional children is planned and carried out with care, identification of visual defects becomes more adequate and accurate; referral for follow-up professional eye examinations becomes more objective. Decisions regarding glasses, patching, orthoptics, surgery, or other professional eye care are still the responsibility of the eye specialist. If visual defects are identified earlier, corrected when possible, and observed more closely by professionals, many exceptional children will have a greater opportunity to grow and learn than ever before. It is the right of every handicapped child, not only to have a free public education, but also to have his visual abilities functioning at optimum efficiency. If vision screening evaluates adequately and refers effectively, this dream takes one more giant step toward reality.

TABLE 1

"Team" Screening Statistics (Sch. Yr. 1977-78)

265 children screened

189 "Passed" (criteria for passing was unstated.)

28 "Under care" (separate from "passed" group; no overlap)

48 "Referrable" (three separate and non-overlapping lists; criteria were:

37 "needed a complete examination"

9 "referred for a professional examination"

2 "referrals not previously sent"

Analysis of these data:

189 "Passed" group:

34 had no acuity given (17 untestable, 10 "under care," 7 stated observations - see Table 2)

7 acuity listings of 20/50 or worse in the better eye, or had an acuity listing that indicated a difference of two lines in the eye chart.

1 acuity listed for one eye only

8 acuities were 20/40 (borderline referrable)

50 children who should not have "passed"

139 accurate "passes" (acuities of 20/30 or better)

Of this group, 35 were noted to be "under care" but were not in the "under care" listing. Of these 35, no acuity was given for 9 children, and 9 whose acuity was given were 20/40 or worse. (These 35 overlap the catagories described above in the listing.)

28 "Under Care" group

21 valid "passes"

7 should have been referrable (20/40 or worse in the better eye, or an acuity difference of two lines in the eye chart)
(This group did not overlap the 189 "Passed" group.)

48 "Referrable" group: (separated into three lists)

37 "needed a complete examination"
6 no acuity listed; symptoms given
21 acuity within normal limits; symptoms listed
6 acuity defects sufficient for referral
3 borderline acuities (20/40, 20/30 combinations; no symptoms given
1 normal acuity, followed by the words "symptoms"

9 "referred for a professional examination"
5 listed both acuity and symptoms
2 no acuity; sumptoms only
2 no acuity; no symptoms; noted as untestable
(All of these were noted to have been seen by an eye specialist at some time in the past.)

It was impossible to conclude why two children had been placed in a separate listing, since the screening results were at least as conclusive as any others in the group of referrals: one noted borderline acuity but described symptoms; the other listed both defective acuity and symptoms.

TABLE 2

A charting of symptoms, in order of decreasing occurrence follows:

Symptom Recorded	"Passed" group	"Referrable" group
One or both eyes turn in, out, up or down	12	26
Convergence poor or absent	3	2
Squints	1	3
Blinks	2	2
"Tilts head"	0	1
"Holds things close"	2	0
Eyes "bother him"	0	1
No tracking	1	0
Eyes red	1	0
One eye partly closed	1	0
"Eyes constantly darting"	1	0
"Floating eyes"	1	0
"Eye breaks earlier"	1	0
"Matting on one eye"	1	0
"Left eye slides out before right"	1	0
Screened with glasses	1	0
Broken glasses	1	0
Won't wear glasses	1	0
Child should wear her glasses	1	0
Medication symptoms	1	0
Lacks concentration	1	0
Hyperactivity	2	0

Symptom Recorded	"Passed" group	"Referrable" group
Autistic	2	0
Severe retardation	9	0
"Many symptoms	0	2

NOTE: An analytical summary of these data suggests conclusions that are irreconcilable with the actual report itself. Of the 265 children that were screened, 160 actually "passed;" 105 were referrable, if "untestable" children were counted among these. This represents almost a 40% referral rate, whereas the original report stated a 29% referral rate. The difference in accuracy of screening/referral seemed too great to encourage acceptance of the methods used to obtain the results.

TABLE 3

Battery Screening Statistics (School Year 1978-79)

REFERRAL STANDARDS:

Definite Referrals

Basic Battery: one or more of the following factors:

1. 20/50 or worse, either eye, on Snellen E Chart
2. Observable muscle imbalance on cover test or tracking
3. Any observable symptom of gross defect in structure or function of the eyes

Stycar FIVE: inability to identify 4.5 letters at 10'

Stycar Toys: inability to distinguish large fork & spoon at 10'

Stycar Balls: inability to track ½" or smaller ball at 10'

Observation: Any symptom of gross defect in structure or function of the eyes

Borderline Referrals (These referrals were made on an individual basis, and were dependent on factors known to the School Nurse; typical factors were: child's age, level of cooperation of the family, residence status, child's level of functioning, etc.)

Basic Battery: one or more of the following factors:

1. 20/40, either eye, on Snellen E Chart
2. Suspected muscle imbalance, as observed on the cover test or tracking
3. Squinting, or other unusual visual behavior

All other tests: Any unusual visual behavior while being tested (squinting, head tilting, blocking, intermittent strabismus, etc.)

NOTE: Any child wearing glasses was tested with his glasses on; if school records did not indicate that the child had been examined professionally within two years, referral for re-examination was automatic.

STATISTICAL ANALYSIS:

No. children found to be testable.....306

No. children found to be untestable..... 39

No. children hospitalized (not tested)..... 6

No. children at the Child Development Center.....351

Testable Children:

Basic Battery.....239

Stycar FIVE..... 5

Stycar Toys..... 57

Stycar Balls..... 5

Basic Battery

Passed.....161

Definite referrals... 24

Borderline referrals. 54

Stycar FIVE

Passed..... 4

Referred..... 1

Stycar Toys

Passed..... 42

Definite referrals.... 11

Borderline referrals.. 4

Stycar Balls

Passed..... 2

Referred..... 3

Untestable Children:

Of the 39 children observed, 11 were suspected of having a visual defect of some degree and were referred for professional follow-up. 2 of those 10 are possibly deaf-blind.

APPENDIX 1

Procedure for Basic Battery

Snellen Illiterate "E":

1. Test distance was measured accurately at 20'. (Tape on the floor marked the measurement; child was seated on a chair whose back legs were on this line.)
2. Standard precautions regarding lighting and placement of the chart were observed.
3. Examiner indicated letters to be identified by using a "peep card" (or "window card"); unless there was some observable visual abnormality, testing was begun at the 20/30 line; it was more efficient than beginning at higher lines, since speed was essential -- special children do not concentrate easily or for as long a time. It is not necessary to use the 20/20 line, since few children actually see at that precise efficiency level.
4. Child manipulated a large (6") masonite E, to match the E's exposed by the examiner. It was found that manipulation of the three dimensional E maintained attention better because of the manual involvement; in addition, children seemed better able to match E for E than to turn their hands to indicate directionality. In a few cases where children were physically unable to grasp the E, they were permitted to turn either their eyes or their heads in the indicated direction.
5. Acuity was tested with glasses on, if worn.
6. Both eyes together were tested first; then the second examiner

occluded each eye to elicit acuity of separate eyes. A professional Occluder was used (several were on hand, and cleansed with alcohol after each child's use).

7. Initial examiner recorded acuity results and any pertinent observations, immediately following testing, on a prepared class list.
8. If indications of visual disability were present, additional Snellen lines were utilized. The element of speed was maintained insofar as possible to maintain the span of concentration.

Tracking:

1. Second examiner immediately utilized the Occluder to determine tracking ability. (Another object or toy could be used equally well for attention purposes. The Occluder was used because it was handy, and could be tapped lightly -- sound of the tapping assisted in maintaining attention. Often, the examiner had to maintain a running conversation with the child, constantly reminding the child to "keep watching" or "where is it?" while tapping to produce the sound.)
2. Child was asked to watch the Occluder while it moved in a 180° circle of about 1 meter diameter 14" - 16" from the child's face.
3. In a few cases, it was necessary for the examiner to hold the child's head still while moving the Occluder, so that only visual tracking occurred.

4. Inability to track because of unmaintained attention was differentiated from inability to track because of eyes that did not move in tandem. Notations to this effect were made on the records. It was noticed that children who were chronologically or mentally below about six years of age were likely to have immature tracking skills. Only observable muscle deviations were referrable.

Convergence:

1. At the end of the tracking "game" the second examiner brought the Occluder toward the child's nose, as if to "land" on the nose like an airplane.
2. If eyes did not converge to within 3" of the nose, notations were recorded to this effect.
3. Poor convergence was referrable if one or both eyes refused to move toward the nose before the 3" distance was reached by the Occluder.
4. Usually, poor convergence was not an isolated observation, but occurred in conjunction with poor tracking skills and/or negative results on the Cover Test.

Cover Test:

1. Second examiner asked the child to "look at my nose" while examiner's face was 14" - 16" away from child's face.
2. Examiner quickly covered and uncovered child's right eye and then the left eye. It was often necessary to keep reminding the child to "Keep looking at my nose;" occasionally, making a "funny face" at the child helped in maintaining the attention span.
3. Criteria for failure during this test was the deviation of

either eye while covered; the examiner was able to note the "pulling back into line" of a deviating eye when uncovered.

It is interesting to note that the total time required to do the tracking, convergence, and cover tests was less than a minute. This group of tests was felt to have great value in identifying eye muscle problems with reasonable accuracy, though precise measurements of deviations and decisions for treatment or care remained the responsibility of the professional eye specialist to whom referral was made.

APPENDIX 2

STYCAR Tests

The STYCAR (Sheridan Tests for Young Children and Retardates) Vision Tests were developed by Dr. Mary D. Sheridan in England. Her major concern was early identification of vision defects, so that functional visual abilities could be acquired as favorably and as early as possible, thus providing an optimal basis for learning experiences. Dr. Sheridan agreed that the Snellen Chart is still the best screening instrument for school children. She added, however, that the testing of handicapped or very young children with this method presented many difficulties. Her desire was to develop a test, or battery of tests that could be used to assess the vision of both very young children and different types of handicapped children. Her goal was high validity for visual acuity while obtaining data about the child's overall visual competence. The results of her experimentation, observation, and research were the battery of vision tests called the STYCAR Vision Tests: Two charts (similar to the Snellen Chart, useful with 5 year olds, and 6-7 year olds), a near vision letter chart, single-letter cards (used at 10', with as young as 2 year olds), a miniature toy test (used at 10', with children who do not respond to letter matching, roughly 2-3 years of age), a rolling graded-balls test (useful at 10' with infants as young as 6 months old), a mounted graded-balls test to assess peripheral vision (also useful with very young children), and the PANDA test for more accurately assessing the vision of visually handicapped children. In addition, guidelines for observing the visual functioning of infants, birth to 6 months, are also included in the STYCAR handbook.

The tests selected for the purpose of vision screening in this research, were as follows:

One set of single-letter cards, used at 10 feet utilizing a matching procedure, with a cue card in front of the child. The letter cards are spiral bound in sequence, and acuity equivalents are noted on each card for ease of recording results. The examiner "flips" cards; the pupil points to its match on the cue card in front of him. Some children who could not comprehend the directionality of the E chart, or who could not physically manipulate the masonite E model to match the chart, were able to point to matching letters on the cue card. Letters used in this test are V, T, O, H, X. Rationale for the selection of these letters is presented in detail in the STYCAR Manual and is related to the sequential scribbling development of young children -- horizontal, vertical, V shape, circular. This test was selected because Dr. Sheridan found it useful with 3 year olds; experience with handicapped children supported the fact that children at functional age of 4 or more were likely to be able to do the Snellen tumbling E test satisfactorily.

The next easiest test to be selected was the miniature toys test. Dr. Sheridan found this test to be useful with children whose mental age was roughly 2-3 years. This study found the toys test to be useful with otherwise unresponsive, non-verbal children, who had no concept of directionality and for whom pictures or symbols held no interest. The double set of toys in the set are: 2" car; 2" airplane; 2" doll; 2" x 1" chair; 3-1/4" knife, fork and spoon set; 2" knife, fork and spoon set with 1/2" prongs on fork and 7/10" bowl on spoon. Toys are intentionally different colors to eliminate

color matching. After permitting the child, who was seated on the floor, to look at ("play with") the toys momentarily, the examiner, who was also seated on the floor asked at conversational distance, "Do you have one like this?" and displayed one of the toys. Child indicated that he did by pointing to or picking up the matching toy. All toys were tried out to be sure the procedure was understood. The examiner then moved back to a 10' distance, and duplicated the procedure. It was even possible for the second examiner to occlude the child's eyes during this test -- interest in the test was high enough that the child was not noticeably distracted by occlusion. (It should be noted that the chief examiner wore either a dark, plain colored blouse or slacks against which the toys were held, to permit maximum contrast.) The ability to distinguish between the larger fork and spoon at 10' approximates 6/9 acuity (roughly 20/30) and between the smaller fork and spoon at 10' approximates 6/6 (roughly 20/20). Any child who could not distinguish all 7 toys at 10' was considered referrable for a professional eye examination. Noted in the records were any unusual signs of defective visual functioning (squinting, turning the head, leaning forward, holding a toy very close to examine it, tactual exploration as opposed to visual examination, etc.). A rough measure of near vision was the accuracy of reach for the smaller toys. Notations of over-reach or under-reach were made if indicated.

The simplest screening device utilized was the graded balls test. This test was effective with children functioning at ages under 2, who were unable to participate in the toy matching procedure, or whose concentration span was extremely short. Even some children labeled autistic who were unable to relate to the examiner, participated involuntarily in this "game." The examiner sat on the floor at 10' away from the child. White balls made of styrofoam or plastic, of sizes from 2 ½ inches

diameter down to 1/8" diameter, were rolled across the floor on a dark rug. The balls were rolled parallel to the child, and horizontal to his line of vision. Balls were rolled one by one, from the largest to the smallest. Speed, distance of the roll, and the side from which the ball was rolled were varied. The examiner observed which size ball was the smallest the child followed visually, and recorded that size in the records. (i.e., could follow a 1/2" ball at 10 feet.) If a child was able to crawl, he was encouraged to retrieve all of the balls, one by one, and return them to the examiner.

There was no attempt made to establish referrable standards for this test since the size of the balls is not easily and directly comparable to Snellen equivalents. It seemed only necessary to establish that accurate visual functioning existed -- that a child could see and follow a moving object of a determined size. Again, any abnormal visual behavior was noted on the records. The observational clues were usually sufficient for referral if indicated.

OBSERVATIONAL ASSESSMENT

A small percentage of children could not participate in even the rolling balls test. They were the lowest functioning and most immobile children. Mental ages were estimated at under one year. A few profoundly retarded, multiply-handicapped, and suspected autistic children also were unable to be tested with this extended battery of vision screening devices. The procedure of evaluation was extended observation of these children. The examiner spent a minimum of an hour per child in each of the classroom environments; most evaluations took several visits; conversation with the classroom teacher elicted pertinent information. A completed assessment data form

(copy enclosed, see appendix 3) was then enclosed with the health record, in lieu of vision screening results.

APPENDIX 3

Vision Program Services

Chester County Intermediate Unit #24

- Vision Evaluation -

_____ _____ _____

(Vision Consultant) (Date) (School year)

Pupil's Name _____Birthdate_____

Parent's Name _____

Address _____

_____Phone _____

School Attending _____

Class Placement _____Teacher _____

District of Residence _____

I.Q. and/or S/Q Data: Test _____

Date Given _____Examiner_____

Score _____

Additional pertinent data: (functioning level, recommendations)

_____

_____

_____

Physical Data: (Audiometric, Orthopedic, Neurological, etc.)

_____

_____

_____

Visual History: (from records or from parent interview)

1. Has child ever had his eyes examined by an eye specialist? _____ If so, by whom _____ and when _____
2. Has child ever had eye surgery? _____ If so, for what _____
3. Has child ever had any eye infections? _____ If so, describe _____
4. Does child have headaches? _____
5. Does child hold things close to see them? _____
6. Does child fall over things, or bump into things as he walks? _____ If so, describe _____ _____
7. Does child stare at the light? _____
8. Does light seem to hurt his eyes? _____
9. Do the child's eyes cross, "wander," or not appear straight at any time? _____ (particularly when child is tired) _____
10. Any other relevant observations? _____ _____ _____

Observation: Date (s) _____

Appearance

Strabismus _____

Nystagmus _____

Ptosis _____

Pupils: unequal size _____

dilated _____

cloudy _____

Corneas: (enlarged or hazy?) _____

Iris (cleft, aniridia, etc.) _____

Sclera (white, yellow, reddened, etc.)_____

Excessive tearing _____

Lids (crusty, swollen, signs of infection, etc.) _____

_____

Visual Behavior

Unusual head position _____

Squinting _____

Blinking _____

Rubbing _____

Blocking _____

Interested mostly in near objects _____

Holds things close _____

Interested in objects at 10' - 20' _____

Eye-hand: accurate reach _____

Light sensitivity _____

Light fascination _____

Fixation (about how long) _____

Other _____

Mobility

Uses visual clues _____

Trips or falls over peripheral objects _____

Uses hand (s) as antenna (rather than visual clues) ___

Not mobile _____

Other observations _____

_____

_____

_____

_____

_____